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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,165	10/27/2003	Luc Wuidart	S1022.81055US00	3053
23628	7590	11/02/2005	EXAMINER	
WOLF GREENFIELD & SACKS, PC FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 02210-2211			NGUYEN, VAN THU T	
			ART UNIT	PAPER NUMBER
			2824	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/694,165	Applicant(s) WUIDART, LUC	
	Examiner VanThu Nguyen	Art Unit 2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08/04/2005 (RCE and pre-amdmt).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-17 are pending.
2. Claims 9-17 are newly added.

#### *Claim Objections*

3. Claim 4 is objected to because of the following informalities: "terminals-of application" on line 2. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells (U.S. Patent No. 6,687,325) in view of Abadeer et al. (U.S. Patent No. 5,334,880, hereafter Abadeer).

**Regarding claim 1**, Wells discloses, in FIG. 1, a monotonic counter (monotonic counter 116) formed as an integrated circuit (see column 2 lines 37-48), each counting bit being provided by a memory cell (EPROM, or other type of nonvolatile storage, see column 5 lines 43-44).

However, Wells does not disclose that each of the memory cells containing at least one storage element formed of a polysilicon resistor, programmable by irreversible decrease in its value.

Abadeer discloses, in FIG. 1B, a programmable antifuse circuit formed of a polysilicon resistor (F1 and F2' in FIG. 1B and its detail in FIG. 3), programmable by irreversible decrease in its value (see Abstract).

Since Wells and Abadeer are both from the same field of endeavor, the purpose disclosed by Abadeer would have been recognized in the pertinent art of Wells.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to replace the EPROM in Wells with programmable antifuse circuit in Abadeer because programmable antifuse circuit is also one type of nonvolatile storage).

**Regarding claim 2**, Abadeer discloses wherein the programming of said resistor is performed by temporarily submitting it to a constraint current greater than a current for which its value exhibits a maximum (current greater than threshold current  $I_{TH}$ ) (see column 7, lines 14-61).

**Regarding claim 3**, Wells discloses a circuit (all elements except memory blocks 41 in FIG. 4) for decoding the states contained in said cells for providing the resulting count (via DATA terminal).

**Regarding claim 4-5**, Abadeer further discloses, in FIG. 1B, each counting cell comprises, in parallel between two terminals of application of a supply voltage (between voltage supply and ground), two branches (one for each of polysilicon programming resistors F1 and F2') each comprising: a first polysilicon programming resistor (F1 or F2') connected between a first supply terminal (voltage supply) and a terminal of differential reading of the cell state (N1 or N2); and at least one programming switch (QPR1 or QPR2) connecting one of said read terminals to the second supply terminal (ground voltage).

**Regarding claim 6**, Abadeer inherently discloses that programming resistors F1 and F2' are two polysilicon resistors identical in size and in possible doping (F1 and F2' have equal initial resistance values).

**Regarding claim 7**, Abadeer also discloses each counting cell comprises a programming transistor (e.g. QPR1 or QPR2) in series with a programming resistor (e.g. F1 or F2', respectively)

**Regarding claim 8**, Abadeer discloses an inherent circuit for controlling the programming of each of the counting cells, capable of providing individual control signals to the programming switches (via control signals PRG1, PRG2, S1, S2, PASS, see Fig. 1B).

**Regarding claim 9-17**, they are rejected under U.S.C. 103(a) since they recite similar limitations as in claims 1-8.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VanThu Nguyen whose telephone number is (571) 272-1881. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

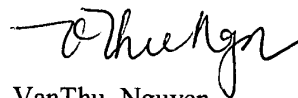
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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October 21, 2005

A handwritten signature in black ink, appearing to read "VanThu Nguyen". The signature is fluid and cursive, with a long horizontal stroke at the beginning and a large, stylized "N" at the end.

VanThu Nguyen  
Primary Examiner  
Art Unit 2824